



# THE COMMONWEALTH OF MASSACHUSETTS

## WATER RESOURCES COMMISSION

100 Cambridge Street, Boston MA 02114

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### **Meeting Minutes for May 13, 2004**

#### **Members in Attendance:**

Karl Honkonen	Designee, EOEa
Marilyn Contreas	Designee, DHCD
Cynthia Giles	Designee, DEP
Gerard Kennedy	Designee, DAR
Mark Tisa	Designee, DFG
Joe McGinn	Designee, DCR
Joe Pelczarski	Designee, CZM
David Rich	Public Member

#### **Others in Attendance:**

Mike Gildesgame	DCR
Linda Marler	DCR
Michele Drury	DCR
Vicki Gartland	DCR
Peter Weiskel	USGS
Duane LeVangie	DEP
Jeffrey LaFleur	Cape Cod Cranberry Growers Assoc
Eileen Simonson	WSCAC
Dick Laramie	CDM
Jon Beekman	SEA
Dave Reckhow	UMASS Amherst

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#### **Agenda Item #1: Executive Director's Report**

Marler provided an update on the hydrologic conditions:

- April precipitation was above normal. Seven inches were received statewide. The northeast region received nine inches. This is a record high and is what was needed after the three dry months at the start of this year. For WY 2004, the statewide figures are at 105% of normal precipitation. All regions are close to 100% of normal.
- Ground water levels are above normal in the eastern half of the state.
- Surface water runoff is above normal in the eastern half of the state, where there was more rainfall. The hydrograph responded to the rainfall. The month has been normal to above normal.
- Reservoirs are all close to full.
- Fire danger levels have increased during the days without rain.

- The Drought Mitigation Center shows Massachusetts in normal conditions. There is a small drought in the southeastern US, but this will not affect Massachusetts in the near term. The SPI has Massachusetts in normal to wet conditions. The forecast through May 23<sup>rd</sup> predicts normal to above normal temperatures and normal to below normal precipitation. This should not be too damaging, given the levels we are at now.
- Joe Pelczarski is reporting that there might be a big drought in the central part of the country, analogous to the 1914 drought, but it should not affect Massachusetts until next fall, if this is correct. It has to do with sunspot activity and the position of the jet stream.

Honkonen gave the Executive Director's Report:

- Two of the existing public members have been reappointed, but not sworn in – Matt Rhodes and Gary Clayton. Once the formality of swearing them in is over, they will be back in their official capacity. We are still waiting for further nominees for the ground water industry representative. Two nominations were received, but the Secretary would like more. Honkonen has been in contact with the Massachusetts Ground Water Association for more nominees. It is a statutory requirement that a representative of the ground water industry sits on the WRC.
- Two public hearings will be held on the Reading ITA application: 3 PM on May 18<sup>th</sup> in Reading and 3 PM on May 19<sup>th</sup> at the Quabbin Visitors Center. Commission members are invited to attend.
- An article appeared in Sunday's Boston Globe Magazine about lawns. It referenced the WRC's "More than Just a Yard" publication. It discusses both the pros and cons of having a lawn. It also discusses the "lower impact lawn".

### **Agenda Item #2: Vote – Minutes of March 2002**

<b>V</b>	A motion was made by McGinn and seconded by Tisa to approve the minutes of March
<b>O</b>	2002.
<b>T</b>	
<b>E</b>	The vote was six in favor with 1 abstention.

### **Agenda Item #3: Update – EOE Water Policy Task Force**

The task force met today. Information concerning the task force is on the EOE website. Honkonen, Gartland, Weiskel and Simonson are members of the task force. There is a broad representation from agencies, municipalities, state and federal government, organizations and industry. The task force began meeting on the 7<sup>th</sup> of April. Subcommittees were formed and have been meeting often. The task force met today to consider the subcommittee comments. These will be fine tuned into a draft document by the middle of June. A 30-day public comment period will extend through mid-July, with the final recommendations released some time in August. The Secretary has assigned a tight time frame.

Some of the principles the task force has operating under are:

- How can water be kept local?
- How can municipalities live within their water budget?
- How can water resources be addressed in a watershed perspective?

- How can clean water be protected and impaired waters be restored?
- How can fish and wildlife habitat be protected and restored?
- How can strategies that are consistent with sustainable water resources be developed?

The four subcommittees of the task force are: streamflow and conservation; resource protection; wastewater and stormwater; permitting and regulatory predictability.

Simonson said the task force subcommittees are trying to integrate what we have and what is underway. The WRC has been subject of a lot of discussion regarding how can it be improved and expanded. Weiskel said there was a lot of stress on the need to have a better handle on water availability on a fairly detailed level, on basin and subbasin levels, and how to direct development into brownfields, rather than greenfields. Laramie asked how this policy relates to the existing water management regulations. Honkonen replied that there was a lot of discussion about how the WMA operates and how the ITA is managed and used or not used. Laramie followed up by asking if the recommendations would include changes to regulations. Honkonen said that it was not appropriate to comment at this time. He suggested that a special session of the WRC be convened so that we can review these issues. Simonson suggested that a 30-day public comment period might not be adequate. A longer period would give the WRC more time to review and discuss the recommendations. McGinn suggested that the Commission use its statutory authority to take testimony from the task force. It was agreed that this would be on the June agenda. Honkonen will check with Stergios to determine if this can be done.

#### **Agenda Item #4: Presentation – Water Management Act Permitting Policy**

Giles stated that the policy is being developed in response to and recognition of the flow problems in many rivers. DEP looked at wastewater transfers out of river basins, particularly the Ipswich, and noted the infiltration and inflow were major contributors to loss of water from our rivers. Water withdrawals and storm water management contribute to low flows and the “flashiness” in streams. Change in pervious cover is also a problem. Withdrawals are only one factor contributing to these problems, and it is not always the largest factor. Of the total water withdrawals subject to regulation, 85% are registered volumes and 15% are permitted, statewide. There are water use issues as well. An incredible amount of water is used to irrigate grass. This is about 50% of residential water use.

This policy will only address 15% of one of the problems (the amount of permitted volumes statewide). The WMA policy and guidance is focused primarily on not letting the problem get any worse. But it is also directed at trying to make some improvement where possible. At a minimum, water should not be wasted.

The policy addresses three things:

1. Water conservation requirements
2. Site screening for new requests
3. Requirements for offsets for new withdrawals, so that any new withdrawal does not make instream flow problems worse.

Water Conservation: The stressed basin report was used, even though it has limitations, because it is all there is. There will be residential gpcd requirements for all permits and limits on non-

essential outdoor use. For high and medium stress basins, the residential gpcd standard is 65. For low stress it is 80, except where local circumstances dictate a stricter standard. There is a two-year period to achieve compliance so that a permittee is not in non-compliance on the day the permit is issued. Compliance will be evaluated based on the information contained within the second Annual Statistical Report received from the issuance date. Unaccounted-for water must be 10% or less for high and medium stress basins and 15% or less for low stress basins. DEP is also requiring a summer withdrawal cap in High and Medium stressed basins. The performance standard is based on “doing better than you are doing now” and the worse a community is doing, the more progress must be made. This standard is based on a comparison of summer use (May – September) and the previous winter’s (November – March) use. If the average ratio of summer to winter use for the previous three years is more than 1.4, there is a requirement to reduce the differential by 50%, based on the highest summer use of that period; between 1.2 or 1.4 the reduction requirement is 25%, based on the high summer; and where the supplier maintains a ratio of 1.2 or less, the Department recognizes the PWS is doing a good job of controlling peak water use and only request that they maintain a ratio of 1.2 or less.

Gildesgame asked how this would be applied to areas such as the Cape and Islands, where there is a huge difference between summer and winter use due to the influx of tourists and summer residents. Giles acknowledged that this is a bit more complicated. LeVangie added that these basins were unassessed, so that the policy would not strictly apply there. Giles said that in these basins, there is not a *per se* standard, and it will be looked at on a case-by-case basis.

Another water conservation requirement is restrictions on nonessential outdoor water use, based on a streamflow trigger. Where there is not a trigger assigned to a basin, as there is in the Ipswich, the Department will use the New England Aquatic Base Flow (ABF) Policy default number of 0.5 cfs, until such time as a better number is developed.

Site screening is done using the Streamstats Program. If the amount to be withdrawn from a source is a certain percentage of the flow, a potential permit applicant will be given some indication of the degree of difficulty involved in permitting that source. This is not a permitting decision. If a permittee wishes to proceed, even though they have gotten a “red light” using Streamstats, that is their choice. This process is in place now. DEP is trying to apply this approach to the cumulative impacts.

Offsets: DEP will ask for offsets to have at least a neutral impact for new sources or increases to permitted withdrawals. The amount of credit received depends on what types of offsets are proposed. DEP does not restrict what can be proposed. The permittee can propose whatever is the most appropriate offset for their situation.

There are exceptions to all these requirements, if local conditions warrant.

Gartland asked what the reaction had been so far. Giles said the policy has been publicized to public water suppliers, and DEP has had positive and negative reactions. Simonson asked how the policy was distributed to the towns. Giles replied that DEP has sent it to the water suppliers, not specifically the towns. As the requirements kick in, DEP will get more feedback. This is a permitting policy, so it does not apply automatically to everyone. It will apply to new permits, permit amendments and permits up for review. Gartland asked if there were any thoughts on

how unassessed basins will be handled, if a party comes to the Commission with information that would put it into one of the categories. Giles asked if there was a methodology in the stressed basin policy to address this. DEP's intention is to use the designations as they exist at the time. Unassessed basins, for purposes of default, are treated as low stress, but that does not automatically mean that the restrictions for low stressed basins apply, if it is known that there are local conditions that warrant more stringent restrictions. The Department reserved the right to require more stringent restrictions in both low and unassessed basins where specific impact questions exist. Weiskel cautioned that Streamstats does not incorporate the effects of withdrawals into its calculations. It is strictly based on basin characteristics for unimpacted flow.

There was a discussion about the provision in the policy that imposes more stringent requirements on communities that do not regulate private wells used for irrigation. DEP wants towns to include private well use in outdoor water bans. If the towns are willing to do this, DEP will give them a better break in the permit for offset credits. Concerns were raised that the policy could drive more people to put private wells in for irrigation.

Honkonen asked which basins this will be enacted in first. Giles answered that the Charles Basin is the next basin up for a 5-year review. LeVangie added that there are basin reviews that have been on hold. The policy will be implemented through these reviews and there are applications pending as well where this will be applied. Giles said that the Ipswich permits have been issued with comparable standards, but they are under appeal. Three weeks ago, the ALJ issued a decision on DEP's authority to impose these conditions, which was being challenged by the permittees. The ALJ found that DEP did have the authority to issue these conditions.

Simonson expressed concern about having two different standards for unaccounted-for water and residential gpcd. Why should we let unstressed basins become stressed basins by giving them a lesser standard? Giles reminded her that the concept of not letting a situation get worse requires offsets for any increases in water use in high and medium stressed basins. This policy is a first step. It is not the solution to the statewide instream flow problem. Gildesgame asked if any consideration was given to impacts to ground water levels. LeVangie replied that site screening applies to both ground water and surface water and assumes a 1:1 relationship between ground water depletion and surface water depletion.

Rich stated that LeVangie made an excellent presentation to the MAWWA on this policy, but afterwards, Rich received quite a few calls – none from a water supplier in a stressed basin. This is because a large majority of water suppliers in stressed basins understand their problem and understand that solutions are needed. All calls came from water suppliers in unstressed and unassessed basins. Some were concerned about DEP taking on more work, given their reductions in staff. But a lot of calls were on the way this was handled. There was no input or knowledge of the policy by water suppliers. This did not help the effort to improve relations between the regulated community and the regulators. There were also a lot of questions from seasonal communities concerning summer limits. There was a feeling that this went through under the radar screen because of the current statewide panic on perchlorate. More thought should have gone into this, and water suppliers should have been brought into the process prior to accepting it, if for no other reason than to determine what really is going to happen to water suppliers if they can't meet these standards. A WMA permit amendment for a new source does

not necessarily mean more water will be withdrawn. It just allows a water supplier more flexibility in handling its systems. This is a problem for water suppliers in its current state.

Giles responded that she understood the point, and that this was an internal policy decision based on the thought that DEP needed to get this policy out for clarity as the basis for decision-making. DEP is doing this even with the staffing cuts because it is important that the most important work be done with the staff available. A new source without new volume is not necessarily viewed as an increase. Simonson added that there was confusion about this, because in the subcommittee that she sits on for the water policy task force, it is believed by some people that if a permittee is under its WMA limits, it cannot add another source, even for redundancy. LeVangie said that when a source is added, capacity is increased, so DEP needs to hold the line on volume. Rich said that the amendment to add a new source and the increase in permitted volume are two different things. The large majority of water suppliers understand this. They don't over-supply.

LeVangie said a big piece of this policy is the reporting requirements. The residential gpcd and unaccounted-for water are now very important numbers. DEP is trying to improve the annual statistical reports. DEP will be going back to the water suppliers for more input on aspects of the policy. Beekman expressed the following views:

- The permit amendment process has gotten more time consuming. It is not just DEP, but there are a lot of other issues.
- The WMA requires an advisory committee to act as a sounding board for many different groups.
- This policy is a unilateral decision by DEP that does not meet the intent of the Act. For DEP to blow by that requirement of the Act, makes the regulated community cynical and skeptical about why.
- It is inappropriate to develop a policy without input from anyone.
- The advisory committee should have been reconvened for this and for the Ipswich permits.

Giles said the advisory committee has been reconstituted and they will be consulted about this policy, but there are permitting decisions that must be made in a timely manner. DEP has been criticized for individualized permitting decisions, and DEP felt that it should hold itself accountable for the basis for its decisions. This policy is consistent with policies that already exist, is less ambiguous than individual decisions, and will allow for more consistent permits.

Beekman stated the greatest number of permits was issued with the WMA advisory board in effect. LeVangie said that the program has evolved since that time. Simonson said that the law says that the registrations should be reviewed. She said that the registration period was based on water use in 1981-1985 and a lot of basins use less water now. This information should be used to review what is happening in stressed basins. Should we allow communities to creep up into their registered amount? LeVangie said that registrations were reviewed in 1997 and 1998 and some nonpublic water suppliers were ratcheted back. Registrations are up for renewal in 2007. Simonson said this should be taken into account when implementing the policy. LeVangie said that it will be brought to the advisory committee. Honkonen requested that DEP keep the WRC informed as implementation of the policy evolves.

**Agenda Item #5: Update – Streamflow Standards and Stressed Basins**

Gartland said that there have been four meetings of the streamflow group. The group is trying to set goals and standards so that measurements can be made of how far off basins are from where they should be. These are not intended to be regulatory thresholds. It is recognized that this is a new way of thinking. The product will be a set of seasonal conditions. These will be based on best science available. This is a framework, a starting point. It is one piece of the water policy puzzle, but it is not the total answer to how permitting, regulation, water policy or other, should be done. Ultimately, the outcome will be a well-described hydrograph that gives a picture of what rivers in Massachusetts should look like. It will be different for each river. It is not an indication of how much water can be taken out of a river or out of a basin.

The meetings have been going well. There is a broad spectrum of scientists represented in the group. At the last meeting, the proposed method for moving forward was discussed. The group is focusing on the latest USGS habitat publication, to see if information from that report on 23 index stations in southern New England can be used. These index stations are relatively unregulated, with minimum withdrawals. The aim is to develop generic annual hydrographs that can be applied to other rivers, basins, and subbasins across the state, to use as a goal. Then the existing flow data from a basin can be compared to the goal hydrograph to determine how far off the river is. It is a stressed basin approach. The previous stressed basin work was relative, but this is more quantitative in the sense that it will identify the most impacted basins, it will show how far off these basins are from the goal and where efforts relative to streamflow should be focused.

The USGS developed hydrographs for the 23 index sites, based on the characteristics found at the sites and based on actual measurements. Climate, rainfall, and temperature seem to control streamflow during the high flow portion of the year and the proportion of stratified drift in the basin was a significant factor for the low flow portions of the year. The first step for the streamflow standards group is to see if those characteristics can be used here and evaluate if the rest of our basins fit within this kind of data set, so that hydrographs can be developed. In order to measure how far off a river is, the challenge will be to develop a monthly, instantaneous statistic and a series of other statistics and measure how far off the river is, not only in quantity, but also in frequency of occurrence. This needs to be understandable and be used as a measure to compare rivers. This is to support the biological needs of rivers, but it is not meant to replace biological needs analyses.

Pelczarski asked what the period of record was for the data used. Gartland replied 25 years of data was used, focusing on the median of the median flows. In addition, actual field numbers are being used. Laramie asked if the stressed basin map will be refined. Gartland answered that this will be a good tool to refine the map because it is more quantitative. Laramie asked if it will indicate if water should be added to a basin. Gartland answered that it is possible. It may also indicate the better times of the year to withdraw water so that water suppliers can optimize their use of water.

Meeting adjourned

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Meeting minutes approved 12/9/04